

REMARKS

Claims 1-43 are pending in the current application. Claims 1, 12, 23, 34 and 39 are independent claims. Claims 34-43 are added by this Amendment.

35 U.S.C. §103(a) Lee in view of Morgan

Claims 1-6, 12-17 and 23-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee (2003/0050086) in view of Morgan (2003/0152102). Applicant respectfully traverses this art grounds of rejection.

Lee is directed to a method of adjusting a signal power in a variable data rate mode in a mobile communication system. Applicant agrees with the Examiner in that “Lee does not explicitly disclose determining the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder” (See Page 3 of the Office Action). However, the Examiner alleges that Morgan discloses this particular deficiency of Lee.

Morgan is directed to a method and apparatus for predicting a frame type. Morgan teaches transmitting frames on different communication channels between a mobile unit (MU) 101 and a base transceiver station (BTS) 103 (See [0019] of Morgan). Morgan teaches using one particular reverse link channel (Reverse pilot channel (PICH)) to indicate the DTX statuses of other reverse link channels (Reverse DCCH, reverse SCHs, etc.) (See [0019]-[0020]).

In [0022], Morgan discusses prior art systems that utilize 16 power-control bits for the MU 101 to request an increase or decrease in transmission power (i.e., if a majority of the 16 bits are “0”, increase power, and if a majority of the 16 bits are “1”, decrease power). Next, in [0023], Morgan teaches reducing the 16 power-control bits to 8, and using these 8 bits as DTX-frame indicators.

Paragraph [0024] of Morgan, which the Examiner cites in the Office Action, discusses how these 8 bits are encoded. At the BTS 103, the 8 bits are received on the R-PICH and the BTS 103 applies a maximum likelihood decoder *to the received 8 bits* to determine their values. Once these values are determined, the BTS 103 knows to some degree of accuracy (Morgan indicates 96%) whether a frame on one of the associated channels *other than the R-PICH* is a DTX frame.

Accordingly, Morgan teaches determining, at a mobile unit, the frame types for frames transmitted on a number of reverse link channels, and modifying the format of a reverse link pilot channel (PICH) to send 8 bits indicating the determined frame types. In contrast, independent claims 1, 12 and 23 are directed to monitoring a rate indicator channel and determining packet presence “based on a likelihood generated by a maximum likelihood decoder *that decodes the rate indicator channel*” (Emphasis added). In Morgan, the maximum likelihood decoder decodes the 8 bits on the R-PICH to determine whether DTX frames are present on *other* channels, *whereas the independent claims are directed to applying the maximum likelihood decoder upon the channel for which frame detection is desired*. Applicant believes that this meaning was apparent from the independent claims as originally filed, but has amended the claims to more clearly recite that the maximum likelihood decoder decodes the actual rate indicator channel (i.e., not a separate channel that may or may not indicate DTX frames on the rate indicator channel, as in Morgan). Support for this amendment may be found at least within Paragraph [0048] of the Specification.

In view of the above remarks, Applicant respectfully submits that Lee in view of Morgan cannot disclose or suggest “determining the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder that decodes the rate indicator channel” as recited in independent claim 1 and similarly recited in independent claims 12 and 23.

Further, as will be appreciated, Morgan teaches determining frame presence (i.e., DTX frame or no DTX frame) at the mobile unit, and then relaying this information to the base station via the 8 power control bits on the R-PICH. In contrast, independent claims 12 and 23 are directed to determining packet presence at the base station itself, such that no relaying of packet presence information need be provided from the mobile unit.

Accordingly, Lee in view of Morgan cannot disclose or suggest “wherein the base station is configured to ... determine the presence of a packet on the rate indicator channel based on a likelihood generated by a maximum likelihood decoder that decodes the rate indicator channel” as recited in independent claim 12 and similarly recited in independent claim 23.

As such, claims 2-6, 13-17 and 24-28, dependent upon independent claims 1, 12 and 23, respectively, are likewise allowable over Lee in view of Morgan at least for the reasons given above with respect to independent claims 1, 12 and 23.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

Further, Applicant respectfully submits that newly added claims 34-43 are allowable over Lee in view of Morgan for the reasons set forth above with respect to independent claims 1, 12 and 23.

35 U.S.C. §103(a) Lee in view of Morgan and further in view of Jou

Claims 8, 19 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lee (2003/0050086) in view of Morgan (2003/0152102) and further in view of Jou (2001/0019541). Applicant respectfully traverses this art grounds of rejection.

Applicant agrees with the Examiner in that Lee and Morgan fail to disclose “that the sub-packet ID and payload size of the packet is compared to sub-packet IDs and payload sizes of

previous packets” (See Page 4 of the Office Action). However, the Examiner alleges that Jou discloses these particular deficiencies of Lee and Morgan.

Jou is directed to an energy based communication rate detection system and method. A review of Jou indicates that Jou is insufficient to cure the suggestion and disclosure deficiencies of Lee and Morgan as discussed above with respect to independent claims 1, 12 and 23. As such, claims 8, 19 and 30, dependent upon independent claims 1, 12 and 23, respectively, are likewise allowable over Lee, Morgan and Jou at least for the reasons given above with respect to independent claims 1, 12 and 23, respectively.

Applicant respectfully requests that the Examiner withdraw this art grounds of rejection.

CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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